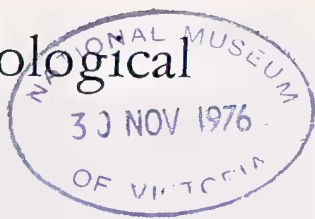


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BOOK REVIEW

Birdwing butterflies of the world by Bernard D'Abrera. 1975. Lansdowne Press, Melbourne. 260 pages, 35 cm by 27 cm, 180 colour plates. Price \$49.50.

This latest of D'Abrera's books is undeniably his best effort to date. In it, all the birdwing butterflies, both species and subspecies, of the genera *Ornithoptera*, *Trogonoptera* and *Troides* are described and, with only a few exceptions, illustrated with superb colour photographs.

Following a particularly fiery foreword, a short introduction leads into several plates of habitat photographs. Such photographs, tending as they do to give the reader a "personal" appreciation of the subject's environment, are always an asset to books of this kind.

The main part of the book is divided into three sections, based on the three genera recognized. The first deals with *Ornithoptera*. Here, as with the other genera treated, species and subspecies are dealt with in turn and illustrated life size. Welcome additions to the text of the *Ornithoptera* are details of life histories where these are known. Colour photographs of the early stages and of living adults greatly enhance this section. Whilst I do not agree with the taxonomic status accorded some species, I feel that the author has presented this section superbly. The photographs of *O. paradisea* are especially pleasing. Regarding the taxonomy of this section, it is strange to find an author who "lumps" so many *priamus* subspecies with *poseidon*, and *goliath* subspecies with *goliath* on the one hand, and then raises others such as *O. p. caelestis*, and *O. p. urvillianus* to specific status on rather shaky grounds. In the case of *O. priamus poseidon*, it would have been better had D'Abrera indicated the extent of morphological and geographical variation in both sexes of this subspecies and demonstrated how the subspecies he synonymises with it fall within these limits of variability. This is especially so in the cases of *pronomus* and *macalpinei*. To synonymise subspecies on the basis of "a female [*macalpinei*] from the Iron Range . . . which is almost a perfect miniature of a female [*poseidon*] from Lae . . ." and "It is also practically identical with the specimen used . . . to illustrate *pronomus* . . ." (page 256) is unsound. Large series should be compared rather than a few specimens or aberrant individuals, and populations from intervening geographical areas should be considered. With reference to food plants, *Aristolochia schlechteri* should have been added to the list for *O. p. poseidon* and should have been recorded as the food plant for *O. meridionalis* (Szent-Ivany, 1971). This is one of several publications that D'Abrera does not appear to have seen. Contrary to the statement on page 58 concerning the abundance of *O. p. euphorion*, the insect is widespread in nearly all rain forest areas of north Queensland, south of the Cooktown area, and its survival can scarcely be regarded as "threatened", except perhaps locally.

The sections on *Trogonoptera* and *Troides*, whilst maintaining the high standard of the plates, suffer from a lack of photographs of early stages or living adults. The only species illustrated in this manner is *T. oblongomaculatus papuensis*. The author also appears to be

unaware of papers by Jumalon (1966-70) which give life-history details for *Trogonoptera trojana*, *Troides rhadamantus* and *Troides magellanus*. A more thorough literature search would have revealed these. Regarding *Troides oblongomaculatus bouruensis*, D'Abbrera should have indicated that male form I is known only from Buru, whilst male form II is found on Buru, Seram, Ambon and the Kapau - Stephansort area of West Irian, and that females of both light and dark forms occur throughout. As it is such an enigma, it is felt he should have examined the problem more thoroughly, and perhaps illustrated both male and female genitalia of the forms, from various localities.

The book closes with a selection of references, a plate of male genitalia (I would like to have seen many more of these), photographs of the female sphragis in *T. brookiana* and *O. chimaera* (D'Abbrera's recognition of the sphragis on some *Ornithoptera* species is an important discovery that does not appear to have been noted before), a couple of plates of gynandromorphs and aberrations, and two notes.

In general, this book is relatively free of the annoying typographical and transcriptional errors that plagued D'Abbrera's earlier works. Errors do persist however and examples are: *O. allotei* is spelt "*O. allotei*" on the plates but correctly in the text and index; *T. amphipras* is spelt "*rufficollis*" throughout; *T. trojana* is referred to as "*trojanus*" in the text and on page 73 *Aristolochia praevenosa* is spelt "*parvenosa*". On page 220 para. 2 (*T. o. bouruensis*) the ♀ f. *argidia* should of course be described as light, not "dark", and also on that page ♀ f. *capnodia* is a synonym for typical ♀ f. *bouruensis*. For *T. rhadamantus bazilanicus* is not a new synonym (Zeuner, 1943).

For a book that has been described as a "definitive monograph" (on the inside of the cover), there are several shortcomings. Dichotomous keys should have been prepared for the separation of the genera and species, as these are essential to every taxonomic monograph. In *Troides* especially, where the species are superficially similar, keys to species and even subspecies would have been an asset. As most species are strongly sexually dimorphic, keys for both males and females should have been presented.

D'Abbrera has, throughout the book, neglected to bracket the names of authors of those species originally described in different genera, this being a breach of Article 51(d) of the International Code of Nomenclature. He also fails to mention those genera in which a species was originally placed, although he does give the date and reference for each subspecies.

There is a complete lack of locality data, i.e. exact locality, altitude, dates collected, names of collectors, etc. In recently collected specimens, if not older ones, such information is available and of great value. Especially for the locally distributed *Ornithoptera* species of Papua New Guinea, such data, particularly altitude, is very important. Habitat data, where known, should also have been included. The location of specimens examined should have been mentioned, whether they be in national museums or private collections. D'Abbrera places all subspecies of *goliath* into the typical race and one other (*procus* from Seram) "having examined a considerable amount of material including types" but enumerates none of the locality data mentioned above. In such cases, distribution maps would also be of great benefit.

In discussing the male genitalia of several species, D'Abbrera incorrectly refers to *pseuduncus* as the "uncus". This is misleading as all members of the Troidini lack a true uncus. In the genitalia figures, the "opposite" claspers of "*O. caelestis*" and "*O. urvillei*" are upside down. Again, for a monograph, more, if not all, species should have been illustrated.

It is a pity that the author of this otherwise superb book has allowed his obvious talents to be marred by the taxonomic irregularities outlined above. Many of these would never have appeared in print had the text been subjected to the normal course of refereeing given to papers in conventional scientific journals. There has, in recent years, been a growing tendency for authors of semi-popular books of this nature to indulge in taxonomic descriptions and rearrangements. It is in the interests of entomology that we work to ensure that such publications are not above the traditional refereeing system which maintains the standards of our science.

In conclusion — an excellent book but a disappointing monograph.